

NEW BUTLER F-103™

factory insulated
cover panels for
Butler Buildings



NEVER BEFORE HAS HIGH EFFICIENCY PROTECTION COST SO LITTLE

INCOMPARABLE INSULATION

Highest thermal efficiency
available anywhere...
in a wall of this thickness

2½"

NEW BUTLER F-103™

With the perfection of the Butler F-103 cover panel, the pre-engineered building enters a new phase of its technical progress. You will see as you scan this folder that many of its qualities are dramatically improved; others completely transformed. And the efficiency achieved through contemporary materials, fabrication and design now put this type of pre-engineered building far ahead of traditional forms of construction in many aspects of performance and economy.

F-103 is the first pre-engineered metal-faced panel fabricated with a foamed-in-place urethane insulating

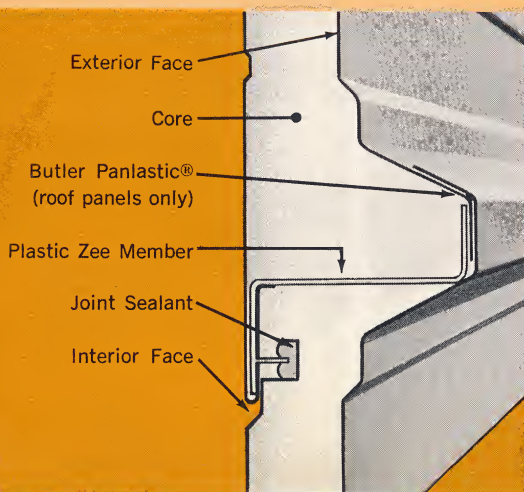
core. (Not the same as urethane board laminated to flat, metal faces.) This foamed-in-place fabrication method permits the use of an external, galvanized steel metal face, rolled to the optimum configuration to gain both extraordinary structural stiffness and better appearance. The urethane is then poured and foamed direct, using the inner and outer metal faces themselves as the mold. As it cures, the urethane firmly bonds to the metal surfaces. The bond-to-metal thus formed is stronger than the shear strength of the urethane itself. This method produces a sandwich panel without internal voids (air pockets) anywhere in the insulation.

A cross section of the actual thickness and configuration of F-103 is shown across the top of this spread. Its nominal thickness is one inch. Yet its *over-all* U factor is an incredible .10 (corroborating tests made by Pennsylvania State University Engineering-Experimental Department).

How does this thermal efficiency compare with masonry walls? It is almost twice as efficient as 12 inches of brick with ½ inch of insulation board,

and ½ inch of plaster. Or a 13-inch wall consisting of 4 inches of brick, 8 inches of hollow tile, ½ inch of insulation board, and ½ inch of plaster. These are considered to be among the most efficient walls, thermally. F-103 is by far the most efficient wall system you can buy in a 1-inch thickness, and one of the most efficient available regardless of thickness.

The detail cross section at left illustrates the care with which the F-103 panel is fabricated to eliminate all possible heat leaks through the panels or joints. The inner and outer faces of each panel are joined together mechanically, as well as by the urethane core. This is achieved by a "thermal joint"—a reinforced, plastic "Z" member, which itself has high insulating properties. The panels are fastened to the steel structurals and to each other by powerful self-clinching rivets. These positive fasteners do not pierce the panels, and thus cannot act as heat channels. Even in extremes of weather, there are no hot or cold spots on an F-103 wall or roof interior surface . . . and of equal importance, there is no condensation.



ASTONISHING STRENGTH

Designed for 90-mile winds with
a wide, additional safety margin

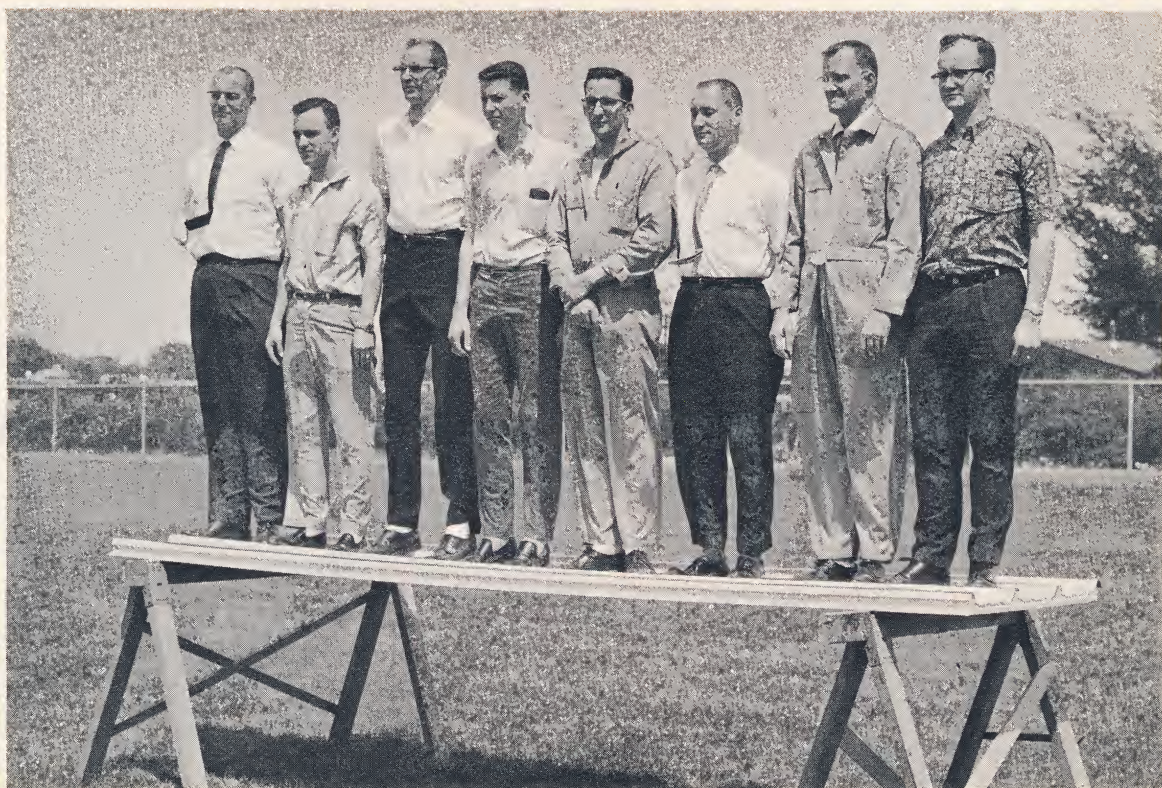
ACTUAL THICKNESS... ONE
INCH

New Butler F-103 panels form a curtain wall and roof system weighing only 2.4 pounds per square foot. Yet these panels are so strong that they will span 14 feet from sill to eave strut without intermediate structural supports. The panels are designed to withstand a 20-pound per square foot wind

load over a 12 foot span with a deflection of less than one inch (1/175). Ultimate strength is much higher, 50 pounds per square foot, or two and one half times the design load. The roof panels and the roof fastening system are engineered to withstand an inward or outward wind force of 50 pounds

psf. with a wide safety margin.

The F-103 cover system produces a Butler building with the solid feel and functional strength of far heavier, far less efficient buildings. Materials and sealing methods class the inside surface formed by F-103 panels as a perfect vapor barrier, both walls and roof.



FASTEST CONSTRUCTION

Save weeks to months of construction time and get a better quality building

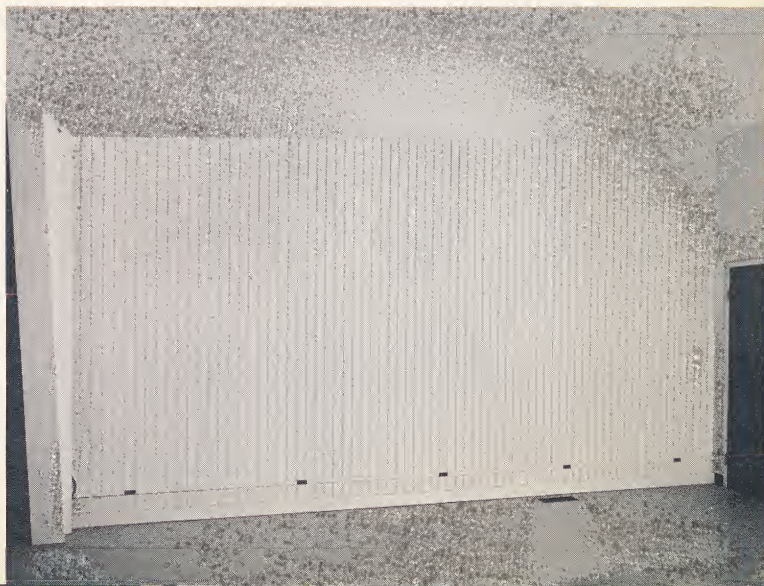


When you specify your Butler building with F-103 cover panels, you can occupy the finished building sooner than you can with any other construction method or materials. Butler F-103 panels are all factory fabricated, dimensioned, and precision punched to fit and function with each other. Panels three feet wide and up to thirty-two feet long put you under snug cover with unbelievable speed. Doors and windows designed for the system are factory located in the walls, and they seal tight without field tinkering.

Full height wall panels tilt into place, and are fastened to the structurals at the sill and eaves. Roof panels install just as easily and quickly.

Most joints throughout the wall system seal tight for life by mere assembly (see cross section). All other joints are assembled by simplified engineering procedures that guarantee uniform thermal efficiency over every square foot of surface.

By a special process, the panels are factory colored inside and out with highest quality vinyl finish, so good that it will last years before repainting. Interiors require no further finishing, and form an exceptionally flat wall, fabricated to simulate four-inch panels, and fitting so closely that the actual, vertical joints are practically invisible. Inside fasteners are at top and bottom only.



APPEALINGLY PRICED

F-103 walls and roof on Butler structurals bring you a bargain-priced building. In place, this building is equal to or slightly lower in price than a building with a properly constructed, sealed and painted, 8-inch block wall, and a conventional, built-up roof. But there the comparison ends. It would take a concrete block wall about three feet thick to match F-103's thermal efficiency. And a built-up roof not only is a distinctly inferior thermal barrier, it requires more care. In fact, few buy-

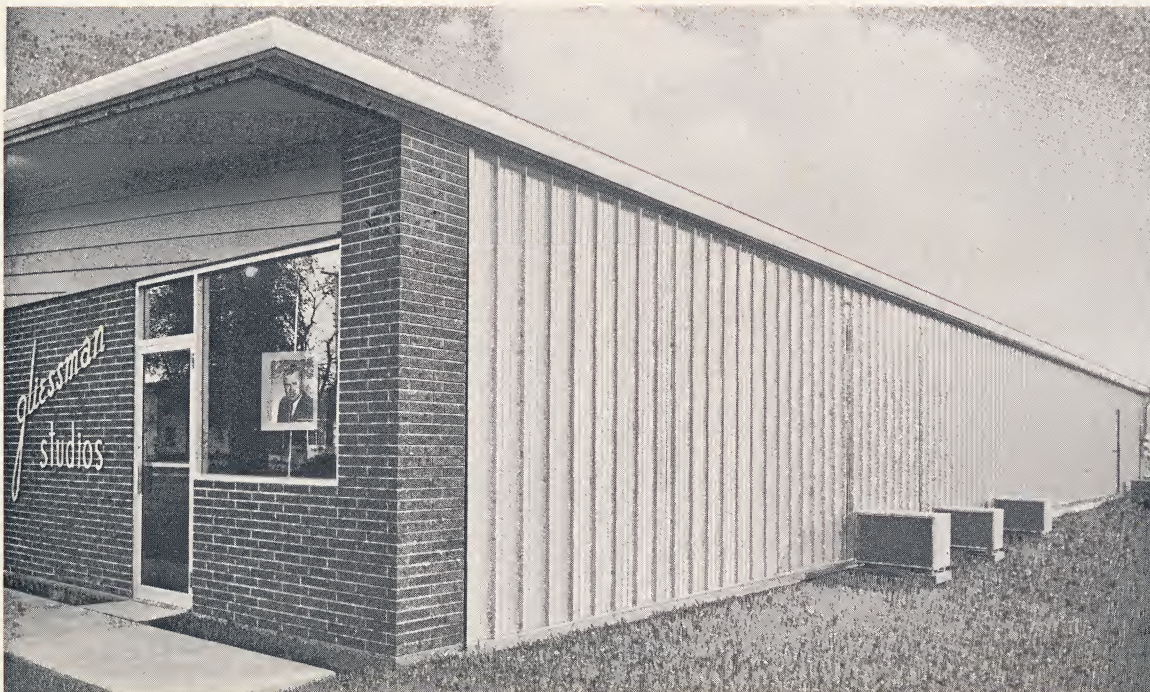
ers would consider it economic to attempt to match Butler F-103 efficiency with traditional materials of any kind.

Buildings which are construction bargains in terms of initial cost, usually turn out to be the poorest performers, most troublesome, and ultimately far more expensive than premium quality construction. This is not the case with F-103. Its true, over-all thermal efficiency (and permanence) is so outstanding that you will realize significant annual savings in heating (and

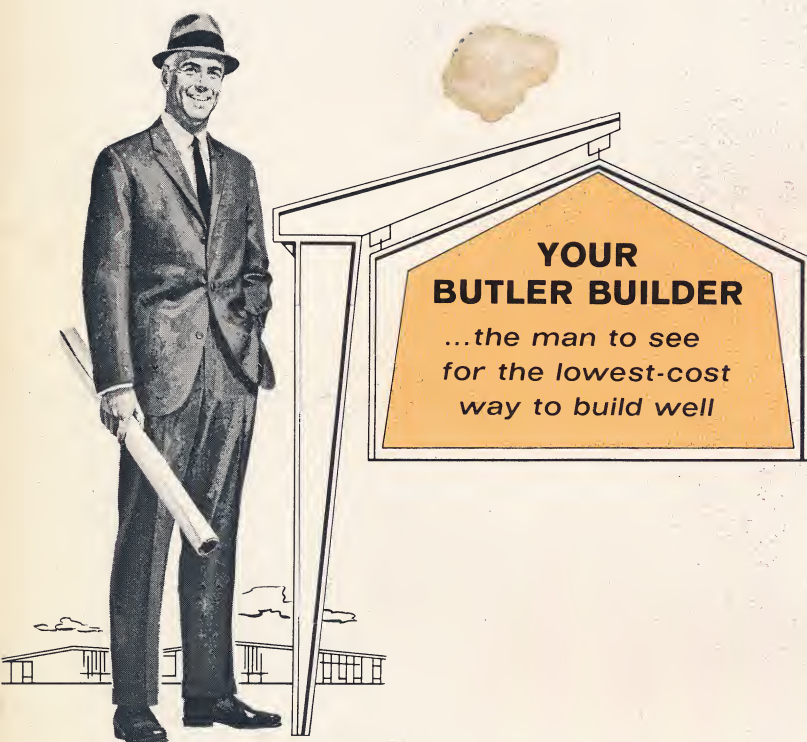
cooling) costs alone. The routine maintenance expense of traditional construction — roof repair, tuck pointing, repainting, caulking — costs that tend to accelerate with time—are dramatically lower with the Butler F-103-clad building. The Butler needs little more than repainting, and that cost is deferred and reduced by the quality, bonderized vinyl finish. Low initial cost, low annual cost, and high functional efficiency make the F-103 Butler one of the very best construction buys.

One of the roughest winters in decades proves Butler F-103 cover system, on public school cafeteria, Alta Vista, Kansas.

*Butler Builder:
George Rinner
Construction
Company, Topeka*



*F-103 panels form north wall on office building at Galesburg, Illinois.
Butler Builder:
Burch-Phalen
Company, Galesburg*



YOUR nearby Butler Builder is the man specializing in pre-engineered construction who offers a real choice of integrated, factory-fabricated building components. Six structural systems. Three uninsulated wall systems (can be field insulated). Four factory-fabricated, insulated wall systems. Superior trim, detailing, color quality, design, dimensioning, fastening systems, sealing methods.

Why is choice so important? Because a single basic metal building model may be perfect for one business, and poorly suited to the next! Build with Butler, and your structure may embody several levels of quality, appearance and price. Butler provides the stark, utilitarian building as well as the smart, contemporary structure with sophisticated sandwich walls. Here is a system scaled to the life expectancy you anticipate, with proportionate relation of price and maintenance expense over a broad spectrum of need.

Why not phone today? And when you do, ask about Butler's finance formula for progress, complete turn-key financing from a reliable source, as low as 20% down payment, terms up to 10 years, convenient installments. Or lease plan, if desired.



BUTLER MANUFACTURING COMPANY

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